

REMARKS

Claims 1, 2, 4, 9-13, 16-32, 34, 35, 38-54 and 56 are currently pending in the subject application and are presently under consideration. Claims 1, 2, 4, 9-13, 16-32, 34, 35, 37, 38, 40, 42-44, 49-54 and 56 have been amended, as shown on pp. 2-15 of the Reply.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Rejection of Claims 1, 2, 4, 7-16, 19-21, 36-40, 43-46, and 51-54 Under 35 U.S.C. §103(a)

Claims 1, 2, 4, 7-16, 19-21, 36-40, 43-46, and 51-54 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Mohammed (US 6,922,559) in view of McIntosh *et al.* (US 2003/0139180) and in further view of Sashihara (US 2002/0157007). It is respectfully requested that this rejection be withdrawn for at least the following reasons. Neither Mohammed nor McIntosh *et al.* nor Sashihara, alone or in combination, disclose or suggest all features recited in the subject claims. Additionally, the Office Action does not make a proper *prima facie* case of obviousness.

An aspect of Applicants' claimed subject matter relates to a dual mode digital cordless handset configured for use in a system for providing voice and data services in multiple networks. In particular, amended independent claim 1 recites:

A dual mode digital cordless handset configured for use in a system for providing voice and data services . . . the dual mode digital cordless handset comprising: . . . means for providing identification information, comprising an identity of a user, to the first wireless access point, to register with the wired data network via the first wireless network, the means for providing identification information comprising: means for providing subscriber identity module (SIM) information, the SIM information being received by a home location register (HLR) of the wired data network, the HLR being configured to obtain from the SIM information, the identification information for determining whether an attempt to access the voice and data services at the dual mode digital cordless handset is legitimate, and for determining features applicable to the dual mode digital cordless handset, the voice and data services being provided by, and a restriction of the voice and data services being defined and implemented by, an application server . . .” (emphasis added).

Mohammed discloses a first network and a second network communicatively coupled to one another via a system server, and configured to communicate with a subscriber device within range of each of the respective networks. The first network provides wireless communication over unlicensed frequencies and includes a wireless communication base station communicatively coupled to a public switched telephone network (PSTN). The second network provides wireless communication over licensed frequencies and, in some embodiments, is a conventional cellular communications network.

The subscriber device includes a control circuit configured to transmit location update and signal strength data requested by the base station. The control circuit includes, *inter alia*, a memory module containing a location tracking module that records the current location of the subscriber device, and an authentication and authorization module to coordinate the authentication procedure between the base station and the subscriber device. The authentication procedure is performed to validate the subscriber device for communication in the first network.

The system server includes application programs for managing handoff between the first network and the second network, a location database for storing the current location of subscriber devices and a billing module for recording unlicensed and licensed network usage information and statistical billing data. Mohammed fails to disclose or suggest the features recited in claim 1.

While Mohammed may disclose the system server having application programs merely for **managing administrative functions** such as handoff, or a billing module merely for **handling administrative purposes** such as billing and gathering of statistical data, it does not disclose or suggest the features recited as “*the voice and data services being provided by, and a restriction of the voice and data services being defined and implemented by, an application server*” (emphasis added) as it fails to disclose **application servers**, for provisioning of **voice and data** or for **restriction of voice and data**. Additionally, Mohammed discloses application programs for **increasing** the services to the subscriber device, by providing billing and handoff. Therefore, Mohammed fails to disclose or suggest the concept of **restricting** services altogether. Rather, Mohammed merely discloses authenticating a subscriber device and providing communication access if the subscriber device is authenticated. Mohammed never discusses or suggests restricting voice and data services or an application server for doing so. McIntosh *et al.* and Sashihara each fail to cure these deficiencies.

McIntosh *et al.* merely discloses a system including a wireless local area network (WLAN) configured to enable communication between User Equipment terminals (UEs) and configured to bill a UE based on the method by which the UE accessed the system or the identity of the party calling to or from the UE. The UE includes a computer program enabling it to access and control supplementary services such as Voice Group Call Service, Voice Broadcast Service, and Call Forwarding Supplementary Services. The UE reviews a number of SIM cards in its own system and makes a **self-directed determination** as to the appropriate services that it should receive. Accordingly, the UE is performing **self-directed control** of the voice and data services that it receives by executing the instructions of its computer program to enable it to access the supplementary services. The voice and data services are **defined by the computer program in the UE** in McIntosh *et al.*, **not by an application server**. Accordingly, McIntosh *et al.* fails to disclose or suggest the features recited as: *“the voice and data services being provided by, and a restriction of the voice and data services being defined and implemented by, an application server”* (emphasis added).

Further, it would not be obvious to one of ordinary skill in the art to modify the features of McIntosh *et al.* to include the features recited in the claim because it would be contrary to the principle of operation in McIntosh *et al.* McIntosh *et al.* teaches a **distributed** approach to defining voice and data services by allowing **each** UE to perform self-directed control of the services that it will receive. McIntosh *et al.* specifically constructs the UE to be able to perform the task of determining the services that it will receive by allowing it to review its own system and SIM cards therein, to determine the corresponding services. Thus, the centralized approach of the features recited in the claim is contrary to the principle of operation taught in McIntosh *et al.* Sashihara fails to cure the deficiencies of Mohammed and McIntosh *et al.*

Sashihara merely discloses a user authentication system and method for authenticating terminals attempting to access a wireless network. The user authentication system is configured with means for generating an HTML document for user identification information and password entry. The HTML document is transmitted to the terminal in response to a terminal request for an authentication page. Upon receipt of the HTML document, a webpage appears on a browser of the terminal and prompts the user of the terminal for entry of the above-described information. In some embodiments, the user identification information is a user ID. Accordingly, while Sashihara

discloses such systems and methods for user authentication, as with McIntosh *et al.*, it fails to cure the deficiencies of Mohammed.

In view of at least the foregoing discussion, Applicants' representative respectfully submits that neither Mohammed nor McIntosh *et al.* nor Sashihara, alone or in combination, disclose or suggest the features of amended independent claim 1 (and claims 2, 4, 9-12, 37, 38, 43, 44, 49 and 51-53, which depend therefrom), and thus fail to render obvious the subject claims. Accordingly, for this reason alone, Applicants' representative respectfully requests that this rejection be withdrawn.

Additionally, Applicants' representative submits that the Office Action does not make a *prima facie* case of obviousness because the reasoning provided for combining Mohammed and McIntosh *et al.* amounts to a mere conclusory statement that is not supported by the rational underpinnings required by the Manual of Patent Examining Procedure (MPEP). Section 2142 of the MPEP states:

The key to supporting any rejection under 35 U.S.C. § 103 is the clear articulation of the reasons(s) why the claimed invention would have been obvious. The Supreme Court in *KSR International Co. v. Teleflex Inc.* . . . noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that **"rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."** *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). (Emphasis added).

The reasoning provided in the Office Action is a mere conclusory statement not supported with a rational underpinning because it merely **re-states** a result that is **already accomplished** by the primary reference **independent** of a combination of the primary reference with the secondary reference. In particular, the Office Action states that "it would have been obvious to one ordinarily skilled in the art . . . to incorporate McIntosh's disclosure of a SIM card in the subscriber device **to further roaming**" (emphasis added). Applicants' representative submits that one of ordinary skill in the art would not have combined McIntosh *et al.* with Mohammed "to further roaming" because Mohammed provides for roaming between multiple networks

independent of McIntosh et al. In fact, Mohammed provides for authentication through the use of an IMSI and such authentication may be employed while the subscriber device is roaming between networks. For at least this reason alone, Applicants' representative submits that a proper prima facie case of obviousness has not been made in the Office Action.

Further, Applicants' representative submits that the Office Action does not make a prima facie case of obviousness based on combining Mohammed and McIntosh *et al.* because the reasoning provided in the Office Action is a mere conclusory statement not supported by reasoning with a rational underpinning. The reasoning merely re-states a result that is already accomplished by the primary reference **independent** of a combination of the primary reference with the secondary reference. In particular, the Office Action states that "it would have been obvious to one ordinarily skilled in the art . . . to incorporate McIntosh's disclosure to provide authentication security for service" (emphasis added). Applicants' representative submits that one of ordinary skill in the art would not have combined McIntosh *et al.* with Mohammed "to provide authentication security" because Mohammed provides authentication security **independent of McIntosh et al.** In fact, as discussed above, Mohammed provides for authentication through the use of an IMSI. For at least this reason alone, Applicants' representative submits that a proper prima facie case of obviousness has not been made in the Office Action.

Further, Applicants' representative submits that the Office Action does not make a prima facie case of obviousness based on combining Mohammed and Sashihara because the reasoning provided in the Office Action is a mere conclusory statement not supported by reasoning with a rational underpinning. The reasoning merely re-states a result that is already accomplished by the primary reference **independent** of a combination of the primary reference with the secondary reference. In particular, the Office Action states that "it would have been obvious to one ordinarily skilled in the art . . . to incorporate Sashihara's disclosure to provide WLAN access to only allowed subscribers" (emphasis added). Applicants' representative submits that one of ordinary skill in the art would not have combined McIntosh *et al.* with Mohammed "to provide WLAN access to only allowed subscribers" because Mohammed provides WLAN access to only allowed subscribers **independent of Sashihara**. In fact, as discussed above, Mohammed provides for access only after authentication with an IMSI and such authentication may be

employed in a WLAN. For at least this reason alone, Applicants' representative submits that a proper prima facie case of obviousness has not been made in the Office Action.

In one aspect, Applicants' claimed subject matter relates to a method of provisioning of voice and data services over a first network having a first wireless access point wired to a wired data network. In particular, amended independent claim 13 recites:

*A method of providing voice and data services over a wired data network . . . the method comprising: detecting, at the dual mode digital cordless handset, a first wireless connection provided by a first wireless access point, wherein the first wireless access point is wired to the wired data network; in response to detecting the first wireless connection, broadcasting a medium access control (MAC) address to the first wireless access point; **in response to broadcasting the MAC address, receiving an Internet Protocol (IP) address at the dual mode digital cordless handset; receiving a request to transmit subscriber identity module (SIM) information using the received IP address; providing, to the wired data network, using the received IP address, the SIM information from the dual mode digital cordless handset . . . ; in response to . . . determining that the user is a valid, the dual mode digital cordless handset receiving, through the wired data network, incoming calls or data services . . . and transmitting outgoing calls or data services"** (emphasis added).*

Neither Mohammed nor McIntosh *et al.* nor Sashihara disclose or suggest the features recited in claim 13. Further to that described with reference to claim 1, Mohammed discloses that when the subscriber device enters the first network, it registers with the first network after completing a number of complex steps that involve repeated transmission to and from the subscriber device.

First, the subscriber device sends an authentication request and a location update request, which includes an international mobile subscriber identity (IMSI) associated with the subscriber device, to the base station associated with the unlicensed network. The base station transmits the information to the system server. Authentication is performed by the first network, thereby generating a signed response (SRES) parameter using the IMSI, a random number, RAND, and an authentication algorithm, which processes a secret key, Ki. The SRES is stored in the first network.

Second, the subscriber device receives the IMSI and RAND from the first network. Third, using a secret key stored in the subscriber device, the subscriber device performs the same authentication algorithm as that performed in the first network. Fourth, the subscriber device then transmits back to the first network, a subscriber device-generated SRES. The subscriber device also has to re-transmit the IMSI that the subscriber device initially transmitted to the first network.

The system server determines if the subscriber device-generated SRES matches the SRES generated by the first network. If the generated values match, an authentication command is generated and the subscriber device is allowed to communicate on the unlicensed frequencies associated with the first network.

Accordingly, a number of complex steps transmitting information repeatedly between the subscriber device and the first network must occur before the subscriber device can be authenticated. Notwithstanding the numerous steps that are taught in Mohammed, Mohammed fails to disclose or suggest the features recited in claim 13. In particular, Mohammed fails to disclose or suggest the following features recited in claim 13: ***“in response to broadcasting the MAC address, receiving an Internet Protocol (IP) address at the dual mode digital cordless handset; receiving a request to transmit subscriber identity module (SIM) information using the received IP address; providing, to the wired data network, using the received IP address, the SIM information from the dual mode digital cordless handset . . . ; in response to . . . determining that the user is a valid, the dual mode digital cordless handset receiving, through the wired data network, incoming calls or data services . . . and transmitting outgoing calls or data services”*** (emphasis added). Neither McIntosh *et al.* nor Sashihara cure these deficiencies.

Further to that described above for McIntosh *et al.* with reference to claim 1, McIntosh *et al.* discloses an embodiment of a communication system including a remote authentication dial-in user service (RADIUS) system for authenticating UEs attempting to access the wireless network. A RADIUS server of the RADIUS system requests and receives from a UE a user name and password. The RADIUS server searches its database for the user name. If the user name is found, the RADIUS server determines if the password is correct. If the password is correct, the RADIUS server transmits to the UE a response indicative of acceptance of the UE along with information such as an IP address assigned to the user. Accordingly, McIntosh *et al.* teaches that the IP address is transmitted to the user **only after** the user is authenticated with the

system. It does not disclose or suggest the features recited as ***“in response to broadcasting the MAC address, receiving an Internet Protocol (IP) address at the dual mode digital cordless handset”*** (emphasis added) nor does it disclose the features recited as: ***“receiving a request to transmit subscriber identity module (SIM) information using the received IP address”*** (emphasis added) or ***“providing, to the wired data network, using the received IP address, the SIM information from the dual mode digital cordless handset”*** (emphasis added).

Further to that described above for Sashihara with reference to claim1, Sashihara, merely discloses a user authentication system and method for authenticating terminals attempting to access a wireless network wherein the user authentication system is configured with means for generating an HTML document for user identification information and password entry. The user enters the user identification information and password entry into an HTML document sent to the user. Accordingly, Sashihara does not disclose or suggest ***“in response to broadcasting the MAC address, receiving an Internet Protocol (IP) address at the dual mode digital cordless handset; receiving a request to transmit subscriber identity module (SIM) information using the received IP address; providing, to the wired data network, using the received IP address, the SIM information from the dual mode digital cordless handset . . . ; in response to . . . determining that the user is a valid, the dual mode digital cordless handset receiving, through the wired data network, incoming calls or data services . . . and transmitting outgoing calls or data services”*** (emphasis added).

In view of at least the foregoing discussion, Applicants’ representative respectfully submits that neither Mohammed nor McIntosh *et al.* nor Sashihara, alone or in combination, disclose or suggest the features of amended independent claim 13 (and claims 16-21, 34, 35, 39, 40, 45, 46, 48 and 50, which depend therefrom), and thus fail to render obvious the subject claims. Accordingly, for this reason alone, Applicants’ representative respectfully requests that this rejection be withdrawn.

Further, Applicants’ representative submits that the Office Action does not make a prima facie case of obviousness because the reasoning provided for combining Mohammed, McIntosh *et al.* and Sashihara is a mere conclusory statement that does not have a rational underpinning, based on at least the reasons provided with reference to claim 1. For at least this reason alone, Applicants’ representative submits that a proper prima facie case of obviousness has not been made in the Office Action.

In another aspect, Applicants' claimed subject matter relates to a method of provisioning of voice and data services over a first network having a first wireless access point wired to a wired data network. In particular, amended independent claim 13 also recites:

*A method of providing voice and data services over a wired data network and over a second wireless network to a dual mode digital cordless handset, the method comprising: . . . providing, to the wired data network, over the received IP address, the SIM information from the dual mode digital cordless handset for determining whether a user identified by the SIM information is a valid user **based on a look-up of the SIM information** in a first home location register (HLR) . . .” (emphasis added).*

As described above, Mohammed teaches that the subscriber device submits an IMSI and that the IMSI is used in an authentication algorithm to calculate an SRES, which is compared to the SRES generated by the subscriber device. Mohammed fails to disclose or suggest using a **look-up feature with the received IMSI**, which may be considered to be part of SIM information. To the contrary, Mohammed compares only the **generated SRES values** and therefore does not disclose or suggest the feature recited as: “*determining whether a user identified by the SIM information is a valid user **based on a look-up of the SIM information** in a first home location register (HLR) . . .” (emphasis added).* Neither McIntosh *et al.* nor Sashihara cure this deficiency.

Further to that described above with reference to claim 1, McIntosh *et al.* merely discloses the step of looking up a user name by a RADIUS server, and the RADIUS authentication system **does not use or rely on a SIM card or the information retrieved from a SIM card**. Additionally, McIntosh *et al.* discloses a SIM card but discloses that its **algorithm and key are employed to facilitate authentication** of the UE for communication with the network. Thus, there is no disclosure of a **look-up** of SIM information. Rather, an authentication algorithm is executed **using** the SIM information.

Additionally, Sashihara merely discloses entry of user identification information and a password into a webpage resultant from an HTML document sent to the terminal. It does not disclose use of a SIM card as the user enters the user identification information and password

directly into the webpage that it receives. The **entered information, not a SIM card or SIM information**, is evaluated by the network.

In view of at least the foregoing discussion, Applicants' representative respectfully submits that neither Mohammed nor McIntosh *et al.* nor Sashihara, alone or in combination, disclose or suggest the features of amended independent claim 13 (and claims 16-21, 34, 35, 39, 40, 45, 46, 48 and 50, which depend therefrom), and thus fail to render obvious the subject claims. Accordingly, for this reason alone, Applicants' representative respectfully requests that this rejection be withdrawn.

Further, Applicants' representative submits that the Office Action does not make a prima facie case of obviousness because the reasoning provided for combining Mohammed, McIntosh *et al.* and Sashihara is a mere conclusory statement that does not have a rational underpinning, based on at least the reasons provided with reference to claim 1. For at least this reason alone, Applicants' representative submits that a proper prima facie case of obviousness has not been made in the Office Action.

In another aspect, Applicants' claimed subject matter relates to a method of provisioning of voice and data services over a first network having a first wireless access point wired to a wired data network. In particular, amended independent claim 13 also recites:

*A method of providing voice and data services over a wired data network and over a second wireless network to a dual mode digital cordless handset, the method comprising: . . . providing, to the wired data network, over the received IP address, the SIM information from the dual mode digital cordless handset for determining whether a user identified by the SIM information is a valid user based on a look-up of the SIM information in a first home location register (HLR), the first HLR being configured to obtain from the SIM information, identification information for determining the voice and data services legitimately accessible by the user identified by the SIM information, **the voice and data services being provided by, and a limitation on the voice and data services being defined and implemented by, a first application server, the limitation being based on the user identified by the SIM information . . .**" (emphasis added).*

For similar reasons to those provided above with reference to claim 1, neither Mohammed nor McIntosh *et al.* nor Sashihara disclose or suggest the features recited above in claim 13. In particular, none of the cited references disclose or suggest a “*limitation on the voice and data services being defined . . . by . . . a **first application server***” (emphasis added).

In view of at least the foregoing discussion, Applicants’ representative respectfully submits that neither Mohammed nor McIntosh *et al.* nor Sashihara, alone or in combination, disclose or suggest the features of amended independent claim 13 (and claims 16-21, 34, 35, 39, 40, 45, 46, 48 and 50, which depend therefrom), and thus fail to render obvious the subject claims. Accordingly, for this reason alone, Applicants’ representative respectfully requests that this rejection be withdrawn.

Further, Applicants’ representative submits that the Office Action does not make a prima facie case of obviousness because the reasoning provided for combining Mohammed, McIntosh *et al.* and Sashihara is a mere conclusory statement that does not have a rational underpinning, based on at least the reasons provided with reference to claim 1. For at least this reason alone, Applicants’ representative submits that a proper prima facie case of obviousness has not been made in the Office Action.

II. Rejection of Claims 34, 49, and 50 Under 35 U.S.C. §103(a)

Claims 34, 49, and 50 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Mohammed (US 6,922,559) in view of McIntosh *et al.* (US 2003/0139180) in further view of Kung *et al.* (US 6,373,817). It is respectfully requested that this rejection be withdrawn for at least the following reasons. Neither Mohammed nor McIntosh *et al.* nor Kung *et al.* alone or in combination, disclose or suggest all features recited in the subject claims.

An aspect of Applicants’ claimed subject matter relates to another method of providing voice and data services over communication networks. In particular, amended dependent claim 34 recites, “[t]he method of claim 13, wherein receiving the incoming calls is performed using Session Initiation Protocol (SIP) software.”

Claim 34 depends from claim 13, and claim 34 therefore incorporates each of the features recited in claim 13. For at least the reasons provided above for claim 13, Applicants’ representative respectfully submits that neither Mohammed nor McIntosh *et al.*, alone or in

combination, disclose or suggest the features of amended dependent claim 34 (and claim 35, which depends therefrom). Kung *et al.* fails to cure these deficiencies.

Kung *et al.* merely discloses methods for routing Internet broadband communications data between users and among a broadband Internet Protocol Telephony Network and a public switched telephone network.

In view of at least the foregoing discussion, Applicants' representative respectfully submits that neither Mohammed nor McIntosh *et al.* nor Kung *et al.*, alone or in combination, disclose or suggest the features of amended dependent claim 34 (and claim 35, which depends therefrom), and thus fail to render obvious the subject claims. Accordingly, for this reason alone, Applicants' representative respectfully requests that this rejection be withdrawn.

An aspect of Applicants' claimed subject matter relates to another method of providing voice and data services over communication networks. In particular, amended dependent claim 50 recites, "[t]he method of claim 13, wherein the first wireless access point is wired to the wired data network through a broadband residential gateway being configured to enable a second wireless access point to connect to the wired data network."

Claim 50 depends from claim 13, and claim 50 therefore incorporates each of the features recited in claim 13. For at least the reasons provided above for claim 13, Applicants' representative respectfully submits that neither Mohammed nor McIntosh *et al.*, alone or in combination, disclose or suggest the features of amended dependent claim 50. Kung *et al.* fails to cure these deficiencies.

Kung *et al.* merely discloses methods for routing Internet broadband communications data between users and among a broadband Internet Protocol Telephony Network and a public switched telephone network.

In view of at least the foregoing discussion, Applicants' representative respectfully submits that neither Mohammed nor McIntosh *et al.* nor Kung *et al.*, alone or in combination, disclose or suggest the features of amended dependent claim 50, and thus fail to render obvious the subject claim. Accordingly, for this reason alone, Applicants' representative respectfully requests that this rejection be withdrawn.

An aspect of Applicants' claimed subject matter relates to another embodiment of a dual mode digital cordless handset for providing of voice and data services over communication networks. In particular, amended dependent claim 49 recites, "[t]he dual mode digital cordless handset of claim 1, wherein the first wireless access point is wired to the wired data network through a broadband residential gateway comprising a broadband modem and a router, the broadband residential gateway being configured to enable a second wireless access point to connect to the wired data network."

Claim 49 depends from claim 1, and claim 49 therefore incorporates each of the features recited in claim 1. For at least the reasons provided above for claim 1, Applicants' representative respectfully submits that neither Mohammed nor McIntosh *et al.*, alone or in combination, disclose or suggest the features of amended dependent claim 49. Kung *et al.* fails to cure these deficiencies.

Kung *et al.* merely discloses methods for routing Internet broadband communications data between users and among a broadband Internet Protocol Telephony Network and a public switched telephone network.

In view of at least the foregoing discussion, Applicants' representative respectfully submits that neither Mohammed nor McIntosh *et al.* nor Kung *et al.*, alone or in combination, disclose or suggest the features of amended dependent claim 49, and thus fail to render obvious the subject claim. Accordingly, for this reason alone, Applicants' representative respectfully requests that this rejection be withdrawn.

III. Rejection of Claim 35 Under 35 U.S.C. §103(a)

Claim 35 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Mohammed (US 6,922,559) in view of McIntosh *et al.* (US 2003/0139180) in further view of Kung *et al.* (US 6,373,817) and in further view of Suhail *et al.* (US 2004/0114603). It is respectfully requested that this rejection be withdrawn for at least the following reasons. Neither Mohammed nor McIntosh *et al.* nor Kung *et al.* nor Suhail *et al.*, alone or in combination, disclose or suggest all features recited in the subject claims.

An aspect of Applicants' claimed subject matter relates to a dual mode device configured to communicate with a plurality of communication networks. In particular, amended dependent

claim 35 recites: “[t]he method of claim 34, further comprising storing the SIP software at the dual mode digital cordless handset.”

Claim 35 depends from claim 13, and claim 35 therefore incorporates each of the features recited in claim 13. For at least the reasons provided above for claim 13, Applicants’ representative respectfully submits that neither Mohammed nor McIntosh *et al.*, alone or in combination, disclose or suggest the features of amended dependent claim 35. Neither Kung *et al.* nor Suhail *et al.* cure these deficiencies.

Kung *et al.* merely discloses methods for routing Internet broadband communications data between users and among a broadband Internet Protocol Telephony Network and a public switched telephone network. Suhail *et al.* merely discloses a VoIP network that includes a graphical proxy to enable terminals in the network to act as H.323 or SIP phones. The terminals are dumb terminals and therefore do not include processors for creating, modifying and/or terminating communication sessions. Notwithstanding such disclosure regarding SIP software relative to the terminals, Suhail *et al.* fails to cure the above-noted deficiencies discussed with reference to claim 13.

In view of at least the foregoing discussion, Applicants’ representative respectfully submits that neither Mohammed nor McIntosh *et al.* nor Kung *et al.* nor Suhail *et al.*, alone or in combination, disclose or suggest the features of amended independent claim 35, and thus fail to render obvious the subject claim. Accordingly, for this reason alone, Applicants’ representative respectfully requests that this rejection be withdrawn.

IV. Rejection of Claims 17 and 18 Under 35 U.S.C. §103(a)

Claims 17 and 18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Mohammed (US 6,922,559) in view of McIntosh *et al.* (US 2003/0139180) in further view of Sinha (US 6,970,474). It is respectfully requested that this rejection be withdrawn for at least the following reasons. Neither Mohammed nor McIntosh *et al.* nor Sinha, alone or in combination, disclose or suggest all features recited in the subject claims.

An aspect of Applicants’ claimed subject matter relates to another method of providing voice and data services over communication networks. In particular, amended dependent claim 17 recites, “[t]he method of claim 13, wherein receiving the incoming calls directed to the dual mode digital cordless handset comprises: communicating via a voice over Internet protocol

(VoIP) session if a one of the incoming calls is directed to a telephone number associated with an IP address that matches the detected IP address.”

Claim 17 depends from amended independent claim 13 and, as such, incorporates all of the recited features of the claim. Based on deficiencies of Mohammed and McIntosh *et al.* discussed in claim 13, neither Mohammed nor McIntosh *et al.* disclose or suggest all of the features recited in claim 17. Sinha does not cure this deficiency.

Sinha merely discloses a network including a gateway configured to communicatively couple a mobile telephone to a data network for provisioning of voice communication over the data network. In some embodiments, the gateway facilitates voice over Internet protocol (VoIP) service at the mobile telephone. Accordingly, while Sinha discloses such, it does not cure the deficiencies noted above with reference to claim 13.

In view of at least the foregoing discussion, Applicants’ representative respectfully submits that neither Mohammed nor McIntosh *et al.* nor Sinha, alone or in combination, discloses or suggests the features of amended dependent claim 17, and thus fails to render obvious the subject claim. Accordingly, for this reason alone, Applicants’ representative respectfully requests that this rejection be withdrawn.

An aspect of Applicants’ claimed subject matter relates to another method of providing voice and data services over communication networks. In particular, amended dependent claim 18 recites, “[t]he method of claim 13, wherein transmitting the outgoing calls from the dual mode digital cordless handset comprises: establishing, at the wired data network, a voice over Internet protocol (VoIP) session with the wired data network to receive respective telephone numbers associated with the outgoing calls; and initiating the outgoing calls to the received telephone numbers.”

Claim 18 depends from amended independent claim 13 and, as such, incorporates all of the recited features of the claim. Based on deficiencies of Mohammed and McIntosh *et al.* discussed in claim 13, neither Mohammed nor McIntosh *et al.* disclose or suggest all of the features recited in claim 18. Sinha does not cure this deficiency.

Sinha merely discloses a network including a gateway configured to communicatively couple a mobile telephone to a data network for provisioning of voice communication over the data network. In some embodiments, the gateway facilitates voice over Internet protocol (VoIP)

service at the mobile telephone. Accordingly, while Sinha discloses such, it does not cure the deficiencies noted above with reference to amended independent claim 13.

In view of at least the foregoing discussion, Applicants' representative respectfully submits that neither Mohammed nor McIntosh *et al.* nor Sinha, alone or in combination, discloses or suggests the features of amended dependent claim 18, and thus fails to render obvious the subject claim. Accordingly, for this reason alone, Applicants' representative respectfully requests that this rejection be withdrawn.

V. Rejection of Claims 22, 23, 25-32, 41, 42, 47 and 48 Under 35 U.S.C. §103(a)

Claims 22, 23, 25-32, 41, 42, 47 and 48 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Rautiola in view of Mohammed (US 6,922,559) in view of McIntosh *et al.* (US 2003/0139180) in further view of Sashihara (US 2002/0157007). It is respectfully requested that this rejection be withdrawn for at least the following reasons. Neither Rautiola nor Mohammed nor McIntosh *et al.* nor Sashihara, alone or in combination, disclose or suggest all features recited in the subject claims.

An aspect of Applicants' claimed subject matter relates to a system for providing voice and data services over communication networks. In particular, amended independent claim 22 recites:

*A system for providing voice and data services over a wired data network and over a second wireless network and having a dual mode digital cordless handset, the system comprising: . . . a **broadband residential gateway configured to provide wireless access** to the wired data network over a first wireless connection; a home location register (HLR) configured to maintain identification information, the HLR also configured to evaluate the maintained identification information to verify legitimacy of an attempt to access the voice and data services applicable for a user associated with a dual mode digital cordless handset, the voice and data services being provided by, and a restriction on the voice and data services being defined and implemented by, an application server communicatively coupled to the HLR; and determine features to be provided to the dual mode digital cordless handset, wherein determining features to be provided to the dual mode digital cordless handset comprises comparing subscriber identity module (SIM) information to the identification information provided to the HLR, the determined features being provided from the application server to the dual mode digital cordless handset via the*

broadband residential gateway; . . . and the dual mode digital cordless handset configured to . . . operate according to the restriction on the voice and data services, wherein the restriction on the voice and data services is defined and implemented by the application server. (Emphasis added).

Rautiola discloses a wireless intranet office (WIO) system that integrates GSM and an Internet protocol (IP)-based intranet and includes dual-mode GSM mobile telephones, a personal base unit, a GSM base transceiver station, an IP local area network (LAN), an interworking unit (IWU), a home location register (HLR) and a mobile switching center (MSC). The IWU may include numerous network entities for providing various capabilities in the WIO system. In particular, in some embodiments, the IWU includes an MS-IP Gateway and an IMC GSM/IP Gateway.

The dual mode GSM mobile telephones may operate in a first mode when communicatively coupled to the personal base unit, and in a second mode when communicatively coupled to the GSM base transceiver station. The dual mode GSM mobile telephones may also be communicatively coupled to the IP LAN for transfer of data to and from the mobile telephones. The IMC GSM/IP Gateway is configured to provide signaling and speech format translations while the MS-IP Gateway is configured to provide mobility and call management resources such as E.164 translation, registration control and call routing. The dual mode GSM mobile telephone communicates over a wireless channel only with the GSM base transceiver station and the personal base unit. Accordingly, Rautiola does not disclose or suggest a feature recited as “*a **broadband residential gateway** configured to provide **wireless access to the wired data network over a wireless connection***” (emphasis added).

Neither Mohammed nor McIntosh *et al.* nor Sashihara cure these deficiencies. As discussed above with reference to claim 1, Mohammed merely discloses a first network and a second network communicatively coupled to one another via a system server, and configured to communicate with a subscriber device within range of each of the respective networks. The first network provides wireless communication over unlicensed frequencies and includes an unlicensed wireless communication base station communicatively coupled to a public switched telephone network (PSTN). The second network provides wireless communication over licensed frequencies and, in some embodiments, is a conventional cellular communications network.

The subscriber device includes a control circuit configured to receive location update and signal strength data requested by the base station. The control circuit includes, *inter alia*, a memory module containing a location tracking module that records the current location of the subscriber device, and an authentication and authorization module to coordinate the authentication procedure between the base station and the subscriber device. The authentication procedure is performed to validate the subscriber device for communication in the first network.

The system server includes application programs for managing handoff between the first network and the second network, a location database for storing the current location of subscriber devices and a billing module for recording unlicensed and licensed network usage information and statistical billing data. Mohammed fails to disclose or suggest the features recited in the subject claims.

While Mohammed may disclose the system server having application programs merely for **managing administrative functions** such as handoff, or a billing module merely for **handling administrative purposes** such as billing and gathering of statistical data, it does not disclose or suggest the features recited as “*the dual mode digital cordless handset configured to: . . . operate according to the restriction on the provided **voice and data services defined and implemented by the application server***” (emphasis added) as it fails to disclose **application servers** for provisioning of **voice and data** or for **restriction on the provided voice and data**. Additionally, Mohammed discloses application programs for **increasing** the services to the subscriber device, by providing billing and handoff. Therefore, Mohammed fails to disclose or suggest the concept of **restricting** services altogether. Rather, Mohammed merely discloses authenticating a subscriber device and providing communication access if the subscriber device is authenticated. Mohammed never discusses or suggests restricting voice and data services or an application server for doing so. McIntosh *et al.* and Sashihara each fail to cure these deficiencies.

McIntosh *et al.* merely discloses a communication system including a wireless local area network (WLAN) configured to enable communication between User Equipment terminals (UEs) and configured to bill a UE based on the method by which the UE accessed the system or the identity of the party calling to or from the UE. The UE includes a computer program enabling it to access and control supplementary services such as Voice Group Call Service, Voice Broadcast Service, and Call Forwarding Supplementary Services. The UE reviews a number of SIM cards in its own system and makes a **self-directed determination** as to the appropriate services that it should receive.

Accordingly, the UE is performing **self-directed control** of the voice and data services that it receives by executing the instructions of its computer program to enable it to access the supplementary services. The voice and data services are **defined by the computer program in the UE** in McIntosh *et al.*, **not by an application server**. Accordingly, McIntosh *et al.* fails to disclose or suggest the features recited as: “*the dual mode digital cordless handset configured to: . . . operate according to the restriction on the voice and data services, wherein the restriction on the voice and data services is **defined and implemented by the application server***” (emphasis added).

Further, it would not be obvious to one of ordinary skill in the art to modify the features of McIntosh *et al.* to include the features recited in the claim because it would be contrary to the principle of operation in McIntosh *et al.* McIntosh *et al.* teaches a **distributed** approach to defining voice and data services by allowing **each** UE to perform self-directed control of the services that it will receive. McIntosh *et al.* specifically constructs the UE to be able to perform the task of determining the services that it will receive by allowing it to review its own system and SIM cards therein, to determine the corresponding services. Thus, the centralized approach of the features recited in the claim is contrary to the principle of operation taught in McIntosh *et al.* Sashihara fails to cure the deficiencies of Mohammed and McIntosh *et al.*

Sashihara merely discloses a user authentication system and method for authenticating terminals attempting to access a wireless network. The user authentication system is configured with means for generating an HTML document for user identification information and password entry. The document is transmitted to the terminal in response to a request for an authentication page from the terminal. Upon receipt of the HTML document, a webpage appears on a browser of the terminal and prompts the user of the terminal for entry of the above-described information. In some embodiments, the user identification information is a user ID. Accordingly, while Sashihara discloses such system and method for user authentication, as with McIntosh *et al.*, it fails to cure the deficiencies of Mohammed.

In view of at least the foregoing discussion, Applicants’ representative respectfully submits that neither Rautiola nor Mohammed nor McIntosh *et al.* nor Sashihara, alone or in combination, disclose or suggest the features of amended independent claim 22 (or claims 23-32, 41, 42, 47 and 54, which depend therefrom), and thus fail to render obvious the subject claims. Accordingly, for this reason alone, Applicants’ representative respectfully requests that this rejection be withdrawn.

Applicants' claimed subject matter relates to another system for providing voice and data communications over communication networks. In particular, amended dependent claim 27 recites: “[t]he system of claim 23, wherein the system further comprises **a directory information database included in the application server, the directory information database including information associating a telephone number to a user name or a business name, and wherein the dual mode digital cordless handset and the digital wired handset are each configured to query the directory information database by inputting the user name or the business name, and receive the associated telephone number in response to querying the directory information database**” (emphasis added).

Further to the description of Rautiola discussed above with reference to claim 22, Rautiola fails to disclose an application server. Rautiola discloses only an MS-IP Gateway, which **does not perform server functions**. Rather, in some embodiments, the MS-IP Gateway performs E.164 address translation between IP addresses and telephone numbers. Accordingly, Rautiola does not disclose or suggest the features recited as “**a directory information database included in the application server, the directory information database including information associating a telephone number to a user name or a business name**” (emphasis added).

Additionally, the E.164 address translation is to translate IP addresses into telephone numbers and vice versa. The translation is performed at the MS-IP Gateway and the terminal **does not query** the MS-IP Gateway by inputting a user name or a business name – **nor does the terminal receive an associated telephone number in response to querying the directory information database**. Accordingly, Rautiola does not disclose or suggest the features recited as: “**wherein the dual mode digital cordless handset and the digital wired handset are each configured to query the directory information database by inputting the user name or the business name, and receive the associated telephone number in response to querying the directory information database**” (emphasis added). Neither Mohammed, nor McIntosh *et al.* nor Sashihara cure the deficiencies of Rautiola.

The teachings of Mohammed, McIntosh *et al.* and Sashihara will be summarized with reference to the descriptions provided above for claims 1 and 13. Mohammed discloses a system and method for a subscriber device to roam between a licensed and an unlicensed network.

Mohammed also discloses a method for authenticating the subscriber device using the associated IMSI.

McIntosh *et al.* discloses a communication system including a wireless local area network (WLAN) and User Equipment terminals (UEs). The UE is configured to access and control supplementary services such as Voice Group Call Service, Voice Broadcast Service, and Call Forwarding Supplementary Services. However, McIntosh *et al.* does not disclose the feature recited as “**directory information database, included in the application server, the directory information database including information associating a telephone number to a user name or a business name**” and the features recited as “**query the directory information database by inputting the user name or the business name, and receive the associated telephone number in response to querying the directory information database**” (emphasis added).

Sashihara merely discloses a user authentication system and method for authenticating terminals attempting to access a wireless network. The user authentication system is configured with means for generating an HTML document for user identification information and password entry. Upon receipt of the HTML document, a webpage appears on a browser of the terminal and prompts the user of the terminal for entry of the above-described information.

In view of at least the foregoing discussion, Applicants’ representative respectfully submits that neither Rautiola nor Mohammed nor McIntosh *et al.* nor Sashihara, alone or in combination, discloses or suggests the features of amended dependent claim 27, and thus fails to render obvious the subject claims. Accordingly, for this reason alone, Applicants’ representative respectfully requests that this rejection be withdrawn.

VI. Rejection of Claim 24 Under 35 U.S.C. §103(a)

Claim 24 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Rautiola in view of Mohammed (US 6,922,559) in view of McIntosh *et al.* (US 2003/0139180) and in further view of Lin *et al.* (US 6,868,072). It is respectfully requested that this rejection be withdrawn for at least the following reasons. Neither Rautiola nor Mohammed nor McIntosh *et al.* nor Lin *et al.*, alone or in combination, disclose or suggest all features recited in the subject claims.

An aspect of Applicants’ claimed subject matter relates to a system for providing voice and data services over communication networks. In particular, amended dependent claim 24

recites, “[t]he system of claim 22, wherein the wired connection comprises a Home Phoneline Network Alliance (HPNA) connection.”

Claim 24 depends from amended independent claim 22 and, as such, incorporates all of the recited features of the claim. Based on deficiencies of Rautiola, Mohammed and McIntosh *et al.* discussed with reference to claim 22, neither Rautiola nor Mohammed nor McIntosh *et al.* disclose or suggest all of the features recited in claim 24. Lin *et al.* does not cure this deficiency.

Lin *et al.* merely discloses a home phone line network architecture including home phone lines interconnected on a UTP transmission medium. In some embodiments, the home phone lines are compliant with the HomePNA transmission protocols and standards. Notwithstanding Lin *et al.* may disclose home phone lines that are HomePNA-compliant, Lin *et al.* does not cure the other deficiencies of Rautiola, Mohammed and McIntosh *et al.* discussed above with reference to claim 22.

In view of at least the foregoing discussion, Applicants’ representative respectfully submits that neither Rautiola nor Mohammed nor McIntosh *et al.* nor Lin *et al.*, alone or in combination, disclose or suggest the features of amended dependent claim 24, and thus fail to render obvious the subject claim. Accordingly, for this reason alone, Applicants’ representative respectfully requests that this rejection be withdrawn.

VII. Rejection of Claim 56 Under 35 U.S.C. §103(a)

Claim 56 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Mohammed (US 6,922,559) in view of Messiet (US 5,875,404). It is respectfully requested that this rejection be withdrawn for at least the following reasons. Neither Mohammed nor Messiet, alone or in combination, disclose or suggest all features recited in the subject claims.

In one aspect, Applicants’ claimed subject matter relates to a dual mode wireless device configured to communicate over a number of communication networks. In particular, amended independent claim 56 recites: “[a] dual mode wireless device . . . comprising: . . . means for providing identification information, comprising an identity of a user of the dual mode wireless device and a **service provider** for the dual mode wireless device . . . the identification information being used to determine services to provide, and restrictions of services to apply, to the dual mode wireless device, the restrictions being associated with the identity of the user of the dual mode wireless device . . .” (emphasis added).

As described with reference to claims 1 and 13, Mohammed teaches a subscriber device that transmits to a base station only two pieces of information for authenticating the subscriber device, i.e., the current location of the subscriber device and an IMSI for authentication of the subscriber device. Accordingly, Mohammed fails to disclose or suggest “[a] dual mode wireless device . . . comprising: . . . means for providing identification information, comprising an identity of a user of the dual mode wireless device and a **service provider** for the dual mode wireless device . . .” (emphasis added). Messiet does not cure these deficiencies.

Messiet merely discloses a digital radiotelephone having an auxiliary SIM card permanently affixed within the digital radiotelephone and configured to enable the digital radiotelephone to perform only pre-defined services such as receiving voicemail messages; and an extractable, SIM card that contains all the data specific to a user and allows all of the conventional capabilities of telephones. The extractable SIM card provides full capability, including capability to place telephone calls with the digital radiotelephone. Messiet fails to disclose or suggest “[a] dual mode wireless device . . . comprising: . . . means for providing identification information, comprising an identity of a user of the dual mode wireless device and a **service provider** for the dual mode wireless device . . .” (emphasis added).

Further, it would not be obvious to modify the features of Messiet to include such features because the **identity of the user** dictates the full suite of functionality with which the extractable SIM card is associated, and therefore, there would be no advantage to providing additional information about the service provider.

In view of at least the foregoing discussion, Applicants’ representative respectfully submits that neither Mohammed nor Messiet, alone or in combination, discloses or suggests the features of amended independent claim 56, and thus fails to render obvious the subject claims. Accordingly, for this reason alone, Applicants’ representative respectfully requests that this rejection be withdrawn.

CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [ATTWP292US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact Applicants' representative at the telephone number below.

Respectfully submitted,

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